59-09

LAT 41.61288 LON -120.50542

IMPORTANT FOREST INSECT OUTBREAKS

California Region, 1958

Losses due to forest insects have decreased to some extent in California during 1958. With a few exceptions, bark-beetle damage in the principal timber-producing forests was below normal most of the year. In some of the high elevation recreational forests this was not the case. Lodgepole pine, in particular, continued to sustain severe infestations of the mountain pine beetle and lodgepole needle miner. Jeffrey pine in these forests was damaged by Jeffrey pine beetle. Late in the year, following one of the driest, warmest fall periods in the State's history, signs of increased bark-beetle activity began to show up in several localities throughout the State. However, it is too early to tell what these portend.

The status of the major insects can be summarized as follows: the western pine beetle in ponderosa pine decreased, particularly in areas around burns where in 1957 it was in outbreak; the mountain pine beetle in lodgepole pine increased statewide, but in sugar pine it was much less active than usual; the Jeffrey pine beetle was active in many parts of the State; the Douglas-fir beetle showed a few signs of increased activity in northwestern California but was not widely epidemic; the California flatheaded borer in ponderosa and Jeffrey pine remained in outbreak in southern California; pine engravers in ponderosa and Jeffrey pine caused little damage early in the year, but showed signs of increasing late in the fall; the fir engraver in the true firs was epidemic in only a few local areas; the lodgepole needle miner remained epidemic in lodgepole pine, with one new center of infestation discovered; seed and cone insects again caused serious damage; for the first time in many years Douglas-fir engraver infestations were common in young Douglas-fir in northwestern California.

Sanitation-salvage logging and salvage-logging infested trees continued to figure prominently in reducing bark beetle-caused losses thoughout the State.

Western pine beetle - Dendroctonus brevicomis Lec.

Host: Ponderosa pine and Coulter pine

Current conditions: Damage to ponderosa pine by this insect was quite localized. The principal localities where it was noted were the northern end of the Devils Garden area, Modoc County; Sacramento Canyon, Shasta County, where the damage was associated with recent right-of-way cuttings; and the Harris Mountain area, Siskiyou County. Infestations in Coulter pine in southern California were more prevalent and more severe. They occurred in Lost Valley, San Diego County; the San Jacinto area, San Bernardino County; and on Figueroa Mountain, San Luis Obispo County. Ponderosa pine in the latter area was also infested. Elsewhere, throughout most of the commercial timber zone, western pine beetle activity was at a low point.

Trend: Decrease statewide.

Mountain pine beetle - Dendroctonus monticolae Hopk.

Host: Lodgepole and sugar pines

Current conditions: The mountain pine beetle in lodgepole pine continued to be very destructive in Yosemite National Park, Tuolumne County, and the Skunk Cabbage Creek drainage, Modoc County. Upward trends in the activities of this insect were noted in lodgepole stands in Lassen Volcanic National Park, Shasta County; Buck Camp, Fresno County; and Reds Meadow, Inyo County. Mountain pine beetle outbreaks in sugar pine around 1955 burned areas were greatly reduced. This insect, like the western pine beetle, was at a low point in most of the mixed conifer stands where sugar pine occurs. The only exception was in the Hoopa Valley Indian Reservation and Bee Mountain-Pecwan areas, Humboldt County, where localized outbreaks occurred.

Trend: Upward in lodgepole pine, downward in sugar pine.

Lodgepole needle miner - Recurvaria milleri Busck.

Host: Lodgepole pine

Current conditions: This insect continued to ravage lodgepole pine stands on about 50,000 acres around Tuolumne Meadows, Yosemite National Park. It was abundant and caused some damage in lodgepole forests to the north, east and south on the Stanislaus and Inyo National Forests, and Sequoia-Kings Canyon National Park. The infestation found on the Stanislaus, in the Emigrant Basin Primitive Area, is a new record for this insect. Additional experiments in the spring and fall, with malathion sprays applied by a helicopter, showed that the needle miner can be controlled if large-enough volumes of spray are put on.

Trend: Continuing epidemic.

Jeffrey pine beetle - Dendroctonus jeffreyi Hopk.

Host: Jeffrey pine

Current conditions: This insect showed signs of increased activity in mature and overmature stands in Florence Lake-Mono Hot Springs area, Fresno County; in Lassen Volcanic National Park, Shasta County; and around Arrowhead and Big Bear Lakes, and the Camp Angeles-Barton Flats area, San Bernardino County. It also caused damage in large second-growth timber near Truckee, Placer County. The serious infestation reported last year in the Cannel Meadows area in Tulare County is being controlled by sanitation-salvage logging.

Trend: Continuing epidemic.

Douglas-fir beetle - Dendroctonus pseudotsugae Hopk.

Host: Douglas-fir

Current conditions: This insect continued in outbreak in the Grider Creek drainage, Siskiyou County, where it has been epidemic since 1954. Elsewhere, infestations remained at a comparatively low level, although on the Hoopa Valley Indian Reservation, Humboldt County, slight increases were noted.

Trend: Slightly upward.

Fir engraver - Scolytus ventralis Lec.

Host: White and red firs

Current conditions: Outbreaks of the fir engraver were quite localized for the State as a whole, and losses in total very moderate. Small pockets of heavy loss were observed in the South Warner mountains, Modoc County; in areas previously heavily defoliated by the Douglas-fir tussock moth in Calaveras and Tuolumne Counties; near Burney, Shasta County; and around Lake Tahoe in Placer and Eldorado Counties.

Trend: Slight upward trend from a low level in 1957.

Pine engravers - Ips confusus Lec. and I. oregoni (Eichh.)

Host: Ponderosa, Coulter and Jeffrey pine

Current conditions: Damage was very light in northern California and moderate in southern California most of the year. Increased activity was observed during the fall, particularly in Lake and Mendocino Counties. One very aggressive infestation by the California five-spined engraver was estimated to have killed about 1,000 second-growth ponderosa pine on about 1,000 acres. Very little associated western pine beetle was observed in this outbreak area.

Trend: Variable, upward in southern California and part of the North Coast, but at a low level elsewhere.

The California flatheaded borer - Melanophila californica Van D.

Host: Jeffrey and ponderosa pine

Current conditions: This insect continued to be epidemic alone or more commonly in association with other bark beetles in many pine stands of southern California. In some areas, such as Alamo Mountain and Mt. Pinos, Ventura County, sanitation-salvage now underway is expected to alleviate the losses to some extent. Infestations at Laguna Mountain and Corte Madera, San Diego County, and in the San Jacinto area, Riverside County, are being held in check by direct control. Maintenance control is also being considered for a mixed infestation of flatheaded borers and pine engravers near Wrightwood, San Bernardino County.

Trend: Continuing epidemic in southern California.

Seed and cone insects

Host: Jeffrey, ponderosa and sugar pine, Douglas-fir

Current conditions: Seed and cone insects continued to cause serious damage in 1958. Cone moths (Barbara and Dioryctria spp.), the Douglas-fir seed chalcid (Megastigmus spermotrophus Wachtl.), and midges (Contarinia sp.) destroyed about 75 percent of a good Douglas-fir cone crop throughout the Douglas-fir belt this year. Some areas were less severely affected than others, but generally damage was so great that it made collecting profitable in only a few locations. The Jeffrey and ponderosa pine cone crop suffered heavy damage from

pine seed moths (Laspeyresia and Hedula spp.) and moderate damage from the ponderosa-pine cone beetle, Conophthorus ponderosae Hopk. It is estimated that about one-half of the sugar-pine cone crop was destroyed this year by the sugar-pine cone beetle, Conophthorus lambertianae Hopk., but generally there were enough cones left to provide a better-than-average supply of seed this year.

Trend: Continuing at a high level.

Douglas-fir engraver - Scolytus unispinosus Lec.

Host: Douglas-fir

Current conditions: For the first time in many years this insect showed signs of aggressiveness. Numerous groups of young Douglas-fir were heavily infested late in the year on cutover lands in Humboldt and Mendocino Counties. Infestations were concentrated around Garberville and Miranda and in scattered locations southward. Trees from sapling size up to 24 inches in diameter were attacked. Most of the infested trees were in or near logging operations, not necessarily current.

Trend: Upward

Submitted by
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